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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/825,150 | 04/16/2004 | Franklin D. Lomax JR. | 248992US23 | 7835 |
| 22850 7590 04/06/2007 OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER NGUYEN, CAM N | |
| | | | ART UNIT 1754 | PAPER NUMBER |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | NOTIFICATION DATE | DELIVERY MODE | |
| 3 MONTHS | | 04/06/2007 | ELECTRONIC | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/06/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
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|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/825,150 | LOMAX ET AL. | |
| | Examiner | Art Unit | |
| | Cam N. Nguyen | 1754 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01/08/07 (an amendment/response).
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-34,36-39,41-44 and 46-49 is/are pending in the application.
- 4a) Of the above claim(s) 32-34,36-39,41-44 and 46-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on originally filed is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicants' amendment and remarks, filed January 08, 2007 has been made of record and entered. Claims 1-20, 35, 40, & 45 have been canceled. Claims 21, 28-29, & 32 have been amended. Claims 47-49 have been added.

Claims 21-34, 36-39, 41-44, & 46-49 are currently pending.

2. Newly submitted claims 48-49 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

The method of making a catalyst in claims 48-49 could be used to make a different catalytic material such as ceramic support materials or adsorbents containing zeolites, carbon nitrides, or mixed metal oxide compositions other than those being claimed in claim 21.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 48-49 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP 821.03.

3. This application contains claims 32-34, 36-39, 41-44, & 46 which drawn to an invention nonelected with traverse in Paper No. July 06, 2006. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 21-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtsuka et al., "hereinafter referred to as Ohtsuka", (PG Pub. No. US 2004/0013591 A1) taken together with Wulff-Doring et al., "hereinafter Wulff-Doring", (US Pat. 6,034,029) or Symons et al., "hereinafter Symons", (US Pat. 6,562,747 B2).

Ohtsuka discloses a catalyst for removing hydrocarbons from a combustion exhaust gas containing methane and containing an excess of oxygen, the catalyst comprising iridium supported on zirconium oxide and having a specific surface area of 2 to 60 m²/g (see page 6, claim 1). The amount of the supported iridium is 0.5 to 20% by weight relative to the zirconium oxide (see page 6, claim 2, & see also claim 3). The iridium is dispersed on the zirconium oxide support in view of the teaching on page 2, paragraph [0029].

Ohtsuka discloses the claimed catalyst, but silent with respect to the zirconium oxide being "monoclinic" as required in the instant claim 21.

However, it would have been *prima facie obvious* to one of ordinary skill in the art at the time the invention was made to make use of such known "monoclinic zirconia" to make the catalyst of Ohtsuka because it is well known in the catalyst art to disperse a noble metal, such as Ir on a zirconia support to form a catalyst, and Wulff-Doring and Symons fairly suggest using "monoclinic zirconia" to make similar catalyst (see Wulff-Doring at col. 7, claims 1 & col. 3, In

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35-39; & Symons at col. 8, claim 1). Thus, provides a person having the ordinary skill in the art the motivation to combine the teachings of the references together.

With respect to the “Ir” concentrations in claim 27, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the “Ir” concentrations in such catalyst in order to achieve an effective catalyst because it is a result effective variable, in view of *In re Boesch*.

Response to Applicants' Arguments

6. Applicants' amendment and response filed on January 08, 2007 has been fully reconsidered, but not deemed persuasive in view of the new ground or rejection(s) and/or objection(s) above.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Citations

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. All references are cited for related art. See PTO-892 Form prepared.

Conclusion

9. Claims 21-34, 36-39, 41-44, & 46-49 are pending. Claims 21-31 are rejected. Claims 32-34, 36-39, 41-44, & 46-49 remain withdrawn due to nonelected (distinct) invention(s). No claims are allowed.

Contacts

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cam N. Nguyen/

Nguyen/cnn

Primary Examiner

April 02, 2007

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